PATENT
0563-1071

IN THE U.S. PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Appeal No.
Roger ROUPHAEL	Conf. 6823
Application No. 10/575,162	Group 3748
Filed May 24, 2006	Examiner Douglas DUFF

ENGINE AIR SUPPLY CONTROL METHOD WHICH IS INTENDED, FOR EXAMPLE, FOR THE CONROL OF A TURBOCHARED ENGINE

APPEAL BRIEF

MAY IT PLEASE YOUR HONORS:

1. Real Party in Interest

The real party in interest in this appeal is:

SIEMENS VDO AUTOMOTIVE, 1 AVENUE PAUL OURLIAC, F-31036 TOULOUSE CEDEX 1, FRANCE.

2. Related Appeals and Interferences

None.

3. Status of Claims

Claims 1-8 have been canceled. Claims 9-26 are pending and stand rejected, from whose final rejection this appeal is taken.

4. Status of Amendments

A non-final Amendment was filed on September 27, 2007, which amended claims in response to the non-final Official Action mailed June 28, 2007.

A final Official Action was mailed December 12, 2007 finally rejecting claims 9-26, from which this appeal is taken.

Accordingly, the claims under appeal are the claims set forth in the non-final Amendment filed September 27, 2007.

5. Summary of Claimed Subject Matter

Independent claim 9: As is set forth in independent claim 9, the present invention pertains to an air supply control method for a turbocharged engine (page 2, lines 19-20) having an intake manifold (20) downstream of a compressor of a turbocharger (14) (page 2, lines 20-22) and an exhaust manifold (22) upstream of a turbine of the turbocharger (14) (page 2, lines 22-23), the method including determining a mass air flow supplied to the engine and/or a pressure in the intake manifold (20) (page 2, lines 23-25), together with a temperature in the exhaust manifold (page 2, lines 25-26), wherein a pressure in the exhaust manifold (22) is determined as a function of the pressure in the intake manifold (20) (page 2, lines 28-30), an engine speed (page 2, line 30), and temperatures in cylinders (4) and in the exhaust manifold (22) (page 2, lines 30-32).

Independent claim 13: As is set forth in independent claim 13, the present invention pertains to an air supply control method for a turbocharged engine (page 2, lines 19-20) having an intake manifold (20) downstream of a compressor of a turbocharger (14) (page 2, lines 20-22) and an exhaust manifold (22) upstream of a turbine of the turbocharger (14) (page 2, lines 22-23), which includes determining a mass air flow supplied to an engine and/or a pressure in an intake manifold (20) (page 2, lines 23-25), together with a temperature in the exhaust manifold (22) (page 2, lines 25-26), wherein a pressure in the exhaust manifold (22) is measured by a sensor (page 3, lines 30-31), and in that the pressure in the intake manifold (20) is determined on the basis of an exhaust pressure measured as a function of an engine speed and temperatures in the cylinders (4) and in the exhaust manifold (22) (page 3, lines 32-35).

Dependent Claim 11: Dependent claim 11 sets forth that the pressure in the exhaust manifold (22) P_{exh} is calculated by a formula: $P_{exh} = [A(T_c)*MAP - B(N, AMP, T_{exh})]/C(T_{exh})$ (page 3, lines 3-6), where A, B and C are predetermined functions (page 3, line 7), T_c is the temperature in the cylinders (page 3, lines 7-8), MAP is the pressure in the intake manifold (page 3, lines 8-9), N is the engine speed (page 3, line 9), AMP is the ambient pressure (page 3, lines 9-10) and T_{exh} is the temperature of burnt gases in the exhaust manifold (page 3, lines 10-11).

Dependent Claim 15: Dependent claim 15 sets forth that the the pressure in the intake manifold MAP is calculated by a formula: $MAP = [F(N, T_{exh})*P_{exh} + G(N, AMP, T_{exh})]/[H(N, T_c)]$ (page 4, lines 6-9), where F, G and H are predetermined functions (page 4, line 10), T_c is the temperature in the cylinders (page 4, lines 10-11), P_{exh} is the pressure in the exhaust manifold (page 4, lines 11-12), N is the engine speed (page 4, line 12), AMP is the ambient pressure (page 4, lines 12-13) and T_{exh} is the temperature of burnt gases in the exhaust manifold (page 4, lines 13-14).

6. Grounds of Rejection to be Reviewed on Appeal

The first ground for review on appeal is whether claims 11 and 15 have been properly rejected under 35 USC §112, first paragraph as being based upon a disclosure that is not enabling.

The second ground for review on appeal is whether claim 13 has been properly rejected under 35 USC §112, second paragraph as being indefinite.

The third ground for review on appeal is whether claims 9, 10, 12-14, 16, 17, 19, 21, 25 and 26 are sufficiently anticipated by KOLMANOVSKY et al. (U.S. Patent 6,035,640) to support a rejection under 35 USC §102(b).

The fourth ground for review on appeal is whether claims 11, 15 and 18 are unpatentable over KOLMANOVSKY et al. sufficient to support a rejection under 35 USC §103(a).

The fifth ground for review on appeal is whether claims 20 and 22-24 are unpatentable over KOLMANOVSKY et al. in view of FAUSTEN (U.S. Patent 5,738,126) sufficient to support a rejection under 35 USC §103(a).

7. Argument

7.1 First Ground: Rejection of Claims 11 and 15 Under 35 USC 112, First Paragraph

Claim 11 under appeal sets forth that the pressure in the exhaust manifold (22) P_{exh} is calculated by formula:

$$P_{exh} = [A(T_c)*MAP - B(N, AMP, T_{exh})]/C(T_{exh}),$$

where A, B and C are predetermined functions, T_c is the temperature in the cylinders, MAP is the pressure in the intake manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of burnt gases in the exhaust manifold.

Claim 15 under appeal sets forth that the pressure in the intake manifold MAP is calculated by a formula:

$$MAP = [F(N, T_{exh})*P_{exh} + G(N, AMP, T_{exh})]/[H(N, T_c)],$$

where F, G and H are predetermined functions, T_c is the temperature in the cylinders, P_{exh} is the pressure in the exhaust manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of burnt gases in the exhaust manifold. predetermined functions A, B, C, F, G and H do not include sufficient units of measure.

The Official Action of December 12, 2007 asserted that predetermined functions A, B, C, F, G and H do not include sufficient units of measure.

However, it should be noted that the mass of gas (Nam) passing through a cylinder is given in equation (d):

$$(d) \quad Nam = \frac{V_{BDC} \times MAP}{R \times T_c} - \frac{V_{TDC} \times Pb}{R \times T_{exh}}$$

as is defined at page 8 of the specification.

If a mass of air flowing into a cylinder (4) per unit of time (MafCyl) is to be calculated, then the mass of gas (Nam) is linked with the rotation speed of the engine. So equation (e) is introduced to reflect this consideration:

$$(e) \quad MafCyl = f(N) \times g(T_c) \times MAP - h(N) \times k(AMP) \times l(T_{exh})$$

One can observe that equation (e) is similar to equation (d), despite the fact that engine speed has now been introduced.

However, the relation between the mass of gas (Nam) and the engine speed (N) is not always linear (and varies from one engine type to another), and functions A, B, C, F, G and H have been introduced. As a result, these functions cannot be explicitly set forth to cover different engine types.

On the other hand, these functions can be accurately set for each and every engine type, i.e., all the engines of a series, during testing. These functions are then stored in the

E.C.U (engine control unit) and can be used, for example, when calculating P_{exh}.

Further, the Official Actions have failed to provide sufficient reasoning to support an allegation of lack of enablement.

"A threshold issue is whether the PTO met its burden of proof in calling into question the enablement of appellant's disclosure. This burden required that the PTO advance acceptable reasoning inconsistent with enablement. Thereupon, the burden would shift to appellant to show that one of ordinary skill in the art could have practiced the claimed invention without undue experimentation. *In re Sichert*, 566 F2d 1154, 1161, 196 USPQ 209, 215 (CCPA 1977)." *In re Strahilevits*, 212 USPQ 561, 563 (CCPA 1982).

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." *United States v. Telectronics, Inc.*, 8 USPQ2d 1217 (Fed. Cir. 1988); *In re Stephens*, 188 USPQ 659 (CCPA 1976). "A patent may be enabling even though some experimentation is necessary; the amount of experimentation, however, must not be unduly extensive." *Utter v. Hiraga*, 6 USPQ2d 1709, 1714 (Fed. Cir. 1988).

There is no requirement in 35 USC 112 or anywhere else in the patent law that a specification convince persons skilled

in the art that the assertions in the specification are correct… In examining a patent application, the PTO is required to assume that the specification complies with the enablement provisions of Section 112 unless it has 'acceptable evidence or reasoning' to suggest otherwise… The PTO thus must provide reasons supported by the record as a whole why the specification is not enabling… Then and only then does the burden shift to the applicant to show that one of ordinary skill in the art could have practiced the claimed invention without undue experimentation. *Gould v. Quigg*, 3 USPQ2d 1302 (Fed. Cir. 1987).

In this case, the Official Actions of December 12, 2007 and June 28, 2007 at page 2 each state: "The subject matter contained within the predetermined functions A, B, C, F, G, H is essential for the Examiner to conduct a search for prior art. The claimed functions do not include sufficient units of measure to complete the claimed exhaust equation in claims 11 and 15."

However, Appellant is not aware of any requirement of undue burden of search under 35 USC §112, first paragraph. Rather, the issue is undue experimentation. As noted above, the disclosure taken as a whole would enable one of ordinary skill to practice the invention of claims 11 and 15 without undue experimentation. Once enabled, the ability to search the art would follow.

The rejection of claims 11 and 15 for not being enabled should thus be withdrawn.

7.2 Second Ground: Rejection of Claim 13 Under 35 USC 112, Second Paragraph

The Official Action asserts that the phrase "or the like" in claim 13 renders that claim indefinite. However, this phrase was removed from claim 13 in the Amendment filed September 27, 2007, thus rendering this issue moot.

The rejection of claim 13 for indefiniteness should thus be withdrawn.

7.3 Third Ground: Anticipation Rejection of Claims 9, 10, 12-14, 16, 17, 19, 21, 25 and 26 Over KOLMANOVSKY et al.

The present invention pertains to an air supply control method for a turbocharged engine where a pressure value is determined as a function of other values. The present invention is illustrated, by way of example, in Figure 1 of the application, which is reproduced below.

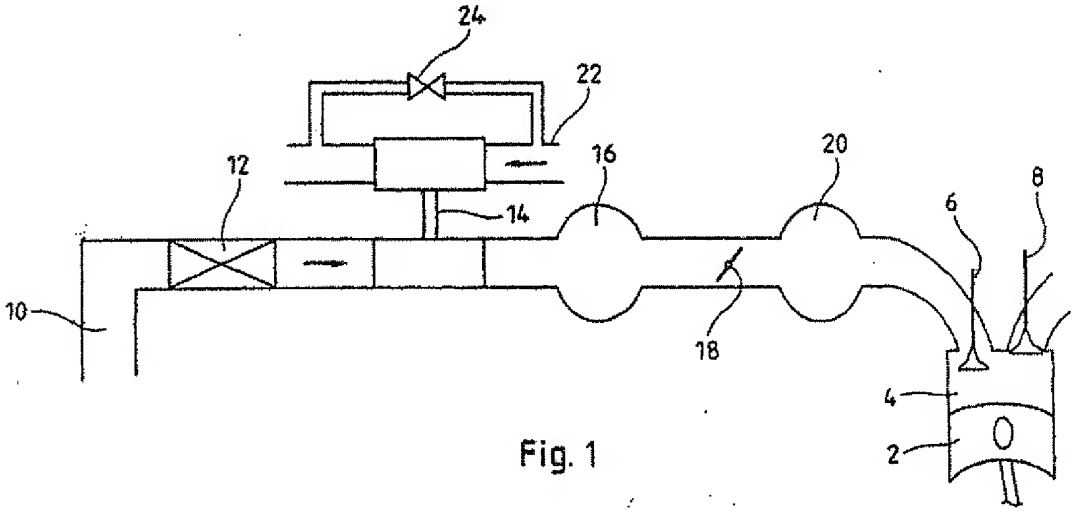


Fig. 1

Independent claim 9 of the present invention recites, in part, "a pressure in the exhaust manifold (22) is determined as a function of the pressure in the intake manifold (20), an engine speed, and temperatures in cylinders (4) and in the exhaust manifold (22)." Independent claim 13 of the present invention recites, in part, "the pressure in the intake manifold (20) is determined on the basis of an exhaust pressure measured as a function of an engine speed and temperatures in the cylinders (4) and in the exhaust manifold (22)."

KOLMANOVSKY et al. pertain to a control method for turbocharged diesel engines. Figure 1 of KOLMANOVSKY et al. is reproduced below.

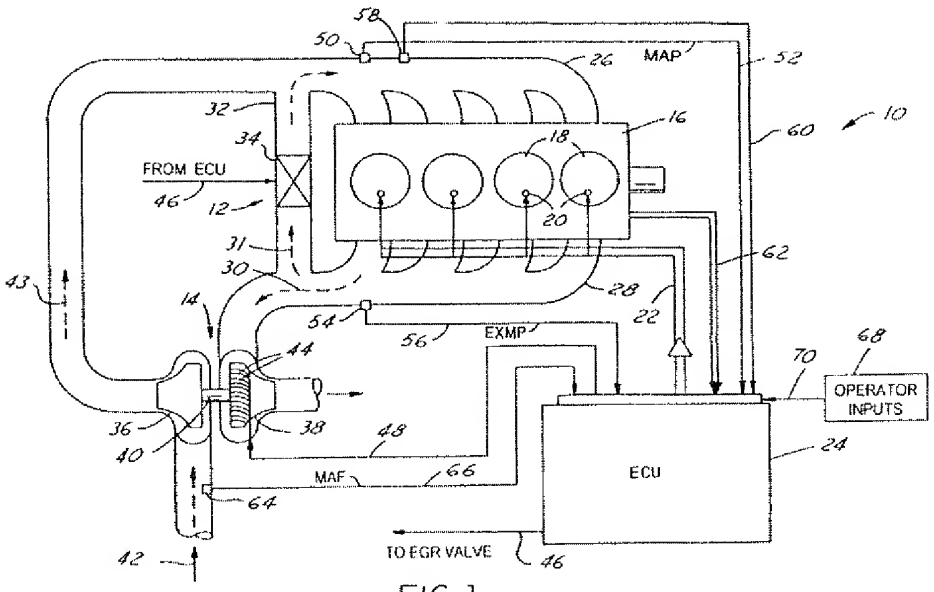


FIG.1

Figure 1 of KOLMANOVSKY et al. shows a turbocharged engine having an intake manifold 26 downstream of a compressor 36. KOLMANOVSKY et al. fail to teach or suggest how pressure in

the intake or exhaust manifold can be calculated from other parameters.

KOLMANOVSKY et al. at column 6, lines 48-51 state: "In equations (10) and (11), the intake and exhaust manifold pressure signals P_m and P_{exh} are assumed to be measured or estimated values." Although KOLMANOVSKY mentions "estimated values," this reference fails to disclose or suggest how intake and exhaust manifold pressures are to be ***determined***, such as are set forth in independent claims 9 and 13 of the present invention.

When alleging anticipation under 35 U.S.C. §102, the entire claim must be considered. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "[A]ll the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All the words of a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In this case, KOLMANOVSKY et al. fail to disclose or suggest each and every element of claims 9 and 13 of the present

invention. KOLMANOVSKY et al. thus fail to anticipate claims 9 and 13 of the present invention. Claims depending upon claims 9 or 13 are patentable for at least the above reasons.

The anticipation rejection over KOLMANOVSKY et al. should thus be withdrawn.

7.4 Fourth Ground: Unpatentability Rejection of Claims 11, 15 and 18 Over KOLMANOVSKY et al.

7.4.1 Interpretation of 35 USC §103

When a rejection is based on 35 USC §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter *as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention *as a whole* would have been obvious to a person of ordinary skill in the art at the time the invention was made. See *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See *Medtronic, Inc. v. Cardiac Pacemakers, Inc.*, 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 USC §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reasoning must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal Inc. v. F-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 825 (1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the

modification. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

The criteria for patentability has been refined by the by the Supreme Court in *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007). The Supreme Court in KSR reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.* (383 U.S. 1, 148 USPQ 459 (1966)), but stated that the Federal Circuit had erred by applying the teaching-suggestion-motivation (TSM) test in an overly rigid and formalistic way. KSR, 550 U.S. at ___, 82 USPQ2d at 1391. Specifically, the Supreme Court stated that the Federal Circuit had erred in four ways: (1) "by holding that courts and patent examiners should look only to the problem the patentee was trying to solve " (Id. at ___, 82 USPQ2d at 1397); (2) by assuming "that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem" (Id.); (3) by concluding "that a patent claim cannot be proved obvious merely by showing that the combination of elements was 'obvious to try'" (Id.); and (4) by overemphasizing "the risk of courts and patent examiners falling prey to hindsight bias" and as a result applying "[r]igid preventative rules that deny factfinders recourse to common sense" (Id.).

Although the Supreme Court in KSR cautioned against an overly rigid application of teaching-suggestion-motivation (TSM) rationale, it also recognized that TSM was one of a number of

valid rationales that could be used to determine obviousness. (According to the Supreme Court, establishment of the TSM approach to the question of obviousness "captured a helpful insight." 550 U.S. at ___, 82 USPQ2d at 1396 (citing *In re Bergel*, 292 F.2d 955, 956-57, 130 USPQ 206, 207-208 (1961)).

7.4.2 Alleged Unpatentability Over KOLMANOVSKY et al.

At pages 3 and 4 the Official Action of December 12 2007 asserts that KOLMANOVSKY et al. teach the mathematical formulas for exhaust pressure and intake pressure:

$$P_{exh} = [A(T_c)*MAP - B(N, AMP, T_{exh})]/C(T_{exh}),$$

$$MAP = [F(N, T_{exh})*P_{exh} + G(N, AMP, T_{exh})]/[H(N, T_c)].$$

However, KOLMANOVSKY et al. at column 6, lines 49-51 state: "In equations (10) and (11), the intake and exhaust manifold pressure signals P_m and P_{exh} are assumed to be measured or estimated values." That is KOLMANOVSKY et al. may teach ***measuring*** or ***estimating***, but KOLMANOVSKY et al. fail to teach or suggest ***calculating***, such is set forth in the P_{exh} and MAP equations above.

Also, Figure 2 of KOLMANOVSKY et al. shows a Pm estimator as part of a flow diagram. See also KOLMANOVSKY et al. at column 6, lines 56-61. However, this Pm estimator of KOLMANOVSKY et al. fails to teach or suggest calculating, such is set forth in the P_{exh} and MAP equations above and set forth in claims 11 and 15.

Additionally, these further assumed aspects of KOLMANOVSKY et al. fail to address the deficiencies of KOLAMOVSKY et al. in anticipating independent claims 9 and 13 of the present invention.

Further, the single reference of KOLMANOVSKY et al. is utilized to allege unpatentability. If a reference needs to be modified to achieve the claimed invention "there must be a showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the obviousness conclusion." *Sibia Neurosciences Inc. v. Cadus Pharmaceutical Corp.*, 225 F.3d 1349, 55 USPQ2d 1927 (Fed. Cir. 2000).

The teachings of KOLMANOVSKY et al. are thus insufficient to render claims 11, 15 and 18 *prima facie* unpatentable to one of ordinary skill. The unpatentability rejection of claims 11, 15 and 18 should accordingly be withdrawn.

7.5 Fifth Ground: Unpatentability Rejection of Claims 20 and 22-44 Over KOLMANOVSKY et al. in View of Fausten

At pages 5 and 6 the Official Action of December 12, 2007 acknowledges that KOLMANOVSKY et al. fail to disclose an intercooler downstream of the turbocharger and the engine being regulated by a mechanically controlled control valve.

The Official Action of December 12, 2007 turns to FAUSTEN for these teachings.

However, these additional teachings of FAUSTEN fail to address the deficiencies of KOLMANOVSKY et al. in teaching or suggesting independent claims 9 and 13 of the present invention.

A *prima facie* case of unpatentability over KOLMANOVSKY et al. in view of FAUSTEN at least for this reason.

The unpatentability rejection over KOLMANOVSKY et al. in view of FAUSTEN should thus be withdrawn.

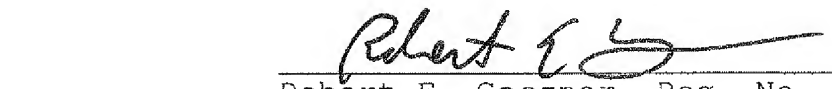
8. Conclusion

The Appellant has demonstrated that the Examiner has failed to successfully allege that the rejected claims are anticipated or *prima facie* unpatentable. It is clear that the inventive method for controlling air supply of a turbocharged engine represents a truly inventive technology. For the reasons advanced above, it is respectfully submitted that all claims in this application are allowable. Thus, favorable reconsideration and reversal of the Examiner's rejections of claims 9-26 under 35 USC §§112, 102 and 103, by the Honorable Board of Patent Appeals and Interferences, are respectfully solicited.

Please charge the requisite Appeal Brief fee in the amount of $510 to our credit card set forth in the attached Credit Card Payment Form.

Respectfully submitted,

YOUNG & THOMPSON



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Enclosures: Claims Appendix
Evidence Appendix
Related Proceedings Appendix

9. Claims Appendix

1-8. (canceled)

9. (previously presented) An air supply control method for a turbocharged engine having an intake manifold (20) downstream of a compressor of a turbocharger (14) and an exhaust manifold (22) upstream of a turbine of the turbocharger (14), comprising:

determining a mass air flow supplied to the engine and/or a pressure in the intake manifold (20), together with a temperature in the exhaust manifold, wherein a pressure in the exhaust manifold (22) is determined as a function of the pressure in the intake manifold (20), an engine speed, and temperatures in cylinders (4) and in the exhaust manifold (22).

10. (previously presented) The control method as claimed in claim 9, wherein a correction factor dependent on the ambient surrounding pressure is provided.

11. (previously presented) The control method as claimed in claim 10, wherein the pressure in the exhaust manifold (22) P_{exh} is calculated by a formula:

$$P_{exh} = [A(T_c)*MAP - B(N, AMP, T_{exh})]/C(T_{exh}),$$

where A, B and C are predetermined functions, T_c is the temperature in the cylinders, MAP is the pressure in the intake manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of burnt gases in the exhaust manifold.

12. (previously presented) The control method as claimed in claim 9, wherein the air flow supplied to the engine is regulated by a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, an ambient external pressure AMP is calculated on a basis of the exhaust pressure as a function of the engine speed.

13. (previously presented) An air supply control method for a turbocharged engine having an intake manifold (20) downstream of a compressor of a turbocharger (14) and an exhaust manifold (22) upstream of a turbine of the turbocharger (14), comprising:

determining a mass air flow supplied to an engine and/or a pressure in an intake manifold (20), together with a temperature in the exhaust manifold (22), wherein a pressure in the exhaust manifold (22) is measured by a sensor, and in that the pressure in the intake manifold (20) is determined on the basis of an exhaust pressure measured as a function of an engine

speed and temperatures in the cylinders (4) and in the exhaust manifold (22).

14. (previously presented) The control method as claimed in claim 13, wherein a correction factor dependent on the ambient surrounding pressure is provided.

15. (previously presented) The control method as claimed in claim 14, wherein the pressure in the intake manifold MAP is calculated by a formula:

$$MAP = [F(N, T_{exh}) * P_{exh} + G(N, AMP, T_{exh})]/[H(N, T_c)],$$

where F, G and H are predetermined functions, T_c is the temperature in the cylinders, P_{exh} is the pressure in the exhaust manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of burnt gases in the exhaust manifold.

16. (previously presented) The control method as claimed in claim 9, wherein the temperature in the exhaust manifold (22) is determined on the basis of modeling.

17. (previously presented) The control method as claimed in claim 10, wherein the air flow supplied to the engine is regulated by a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, an ambient

external pressure AMP is calculated on a basis of the exhaust pressure as a function of the engine speed.

18. (previously presented) The control method as claimed in claim 11, wherein the air flow supplied to the engine is regulated by a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, the ambient external pressure AMP is calculated on a basis of the exhaust pressure as a function of the engine speed.

19. (previously presented) The control method as claimed in claim 9, wherein an air intake (10) and a mass air flow meter (12) are upstream of the turbocharger (14).

20. (previously presented) The control method as claimed in claim 9, wherein an intercooler (16) is downstream of the turbocharger (14).

21. (previously presented) The control method as claimed in claim 13, wherein an air intake (10) and a mass air flow meter (12) are upstream of the turbocharger (14).

22. (previously presented) The control method as claimed in claim 13, wherein an intercooler (16) is downstream of the turbocharger (14).

23. (previously presented) The control method as claimed in claim 9, wherein the air flow supplied to the engine is regulated by a mechanically or electrically controlled throttle valve (18), and when the throttle valve (18) is electrically controlled, an angle of opening of the throttle valve and opening of a turbocharger discharge valve (14) are controlled simultaneously.

24. (previously presented) The control method as claimed in claim 13, wherein the air flow supplied to the engine is regulated by a mechanically or electrically controlled throttle valve (18), and when the throttle valve (18) is electrically controlled, an angle of opening of the throttle valve and opening of a turbocharger discharge valve (14) are controlled simultaneously.

25. (previously presented) The control method as claimed in claim 9, wherein a correlation between a measured value and the determined pressure in the exhaust manifold (22) is greater than 0.9.

26. (previously presented) The control method as claimed in claim 13, wherein a correlation between a measured value and the determined pressure in the intake manifold (20) is greater than 0.9.

10. Evidence Appendix

None.

11. Related Proceedings Appendix

None.